AMENDMENTS TO THE SPECIFICATION

Please amend the paragraph on page 2, beginning on line 4 and ending on line 7, as follows:

Likewise, base station apparatus B comprises frame formatter 24, spreader 25, modulator 26, amplifier 27, duplexer 28, antenna 29, integrator 30, demodulator 31, despreader 32, SIR ~~maesurer~~ measurer 33 and RAKE combiner 34.

Please amend the paragraph on page 5, beginning on line 7 and ending on line 21, as follows:

Mobile station apparatus M sends TX_DATA_U1, an uplink transmission signal, to the base station apparatuses. Mobile station apparatus M carries out error correction coding on transmission signal TX_DATA_U1 by frame formatter 1. At the same time, mobile station apparatus M inserts a pilot symbol and transmission power control signal TPC_DM for a downlink signal determined based on the result of SIR ~~maesurer~~ measurer 11 that estimates the quality of the downlink signal. Further, mobile station apparatus M spreads the output of frame formatter 1 by spreader 2, modulates by modulator 3, amplifies by amplifier 4, and then sends it from antenna 6 via duplexer 5. At this time, the amplification factor of amplifier 4 is controlled by the output of integrator 7.

Please amend the paragraph beginning on page 5, line 22 and ending on page 6, line 6, as follows:

On the other hand, base station apparatus A inputs the signal received from antenna 18 via duplexer 17, demodulates by demodulator 20, processes by despreader 21 and RAKE combiner 23 and obtains reception signal RX_DATA_UA. Then, base station apparatus A estimates the reception quality of the uplink signal by SIR ~~maesurer~~ measurer 22 using the result of RAKE combiner 23 and determines the transmission power control level of the uplink signal based on this estimated value TPC_UBA. Frame formatter 13 inserts a pilot signal and uplink signal transmission power control bit TPC_UBA into downlink signal TX_DATA_D subjected to error correction coding.

Please amend the paragraph beginning on page 6, line 19 and ending on page 7, line 4, as follows:

Likewise, base station apparatus B inputs the signal received from antenna 29 via duplexer 28, demodulates by demodulator 31, processes by despreader 32 and RAKE combiner 34 and obtains reception signal RX_DATA_UB. At this time, base station apparatus B estimates the reception quality of the uplink signal by SIR ~~maesurer~~ measurer 33 using the result of RAKE combiner 34 and determines the transmission power control level of the unlink signal based on this estimated value TPC_UBB. Frame formatter 24 inserts a pilot signal and uplink signal transmission power control bit TPC_UBB into downlink signal TX_DATA_D subjected to error correction coding. TX_DATA_D is the same as TX_DATA_D of base station A.

Please amend the paragraph beginning on page 7, line 25 and ending on page 8, line 7, as follows:

Mobile station apparatus M demodulates the signal received from antenna 6 via duplexer 5 by demodulator 8 and obtains received data RX_DATA_D via despreader 9 and RAKE combiner 10. Furthermore, mobile station apparatus M estimates the quality of the downlink reception signal by SIR ~~maesurer~~ measurer 11 using the result of RAKE combiner 10 and determines downlink signal transmission power control bit TPC_DM based on this estimated value. Transmission power control of the downlink signal above is performed according to this signal.

Please amend the paragraph on page 11, beginning on line 21 and ending on line 25, as follows:

Mobile station apparatus M comprises frame formatter 101, spreader 102, modulator 103, amplifier 104, duplexer 105, antenna 106, integrator 107, demodulator 108, despreader 109, RAKE combiner 110, SIR ~~maesurer~~ measurer 111 and AND operator 112.

Please amend the paragraph beginning on page 11, line 26 and ending on page 12, line 3, as follows:

On the other hand, base station apparatus A comprises frame formatter 113, spreader 114, modulator 115, A amplifier 116, duplexer 117, antenna 118, integrator 119,

demodulator 120, despreader 121, SIR ~~maesurer~~ measurer 122 and RAKE combiner 123, and further offset adjuster 135.

Please amend the paragraph on page 12, beginning on line 4 and ending on line 8, as follows:

Likewise, base station apparatus B comprises frame formatter 124, spreader 125, modulator 121, amplifier 127, duplexer 128, antenna 129, integrator 130, demodulator 131, despreader 132, SIR ~~maesurer~~ measurer 133 and RAKE combiner 134, and further offset adjuster 136.

Please amend the paragraph on page 12 beginning on line 9 and ending on line 21, as follows:

Offset adjusters 135 and 136 have a function to adjust offset values of the amplification factors of amplifiers 116 and 117. In Embodiment 1, offset adjuster 135 at base station apparatus A controls the amplification factor taking into account both a value obtained by integrator 119 integrating the output from RAKE combiner 123 and the quality of the uplink signal estimated by SIR ~~maesurer~~ measurer 122. Likewise, offset adjuster 136 at base station apparatus B controls the amplification factor taking into account both a value obtained by integrator 130 integrating the output from RAKE combiner 134 and the quality of the uplink signal estimated by SIR ~~maesurer~~ measurer 133.

Please amend the paragraph on page 13, beginning on line 6 and ending on line 17, as follows:

Mobile station apparatus M sends uplink signal TX_DATA_U. First, frame formatter 101 carries out error correction coding on the transmission data, inserts a pilot symbol and inserts downlink signal transmission power control signal TPC_DM determined based on the result of SIR ~~maesurer~~ measurer 111 that estimates the quality of the downlink signal. The output signal of this frame formatter 101 is spread by spreader 102, modulated by modulator 103, amplified by amplifier 104 and transmitted from antenna 106 via duplexer 105. The amplification factor of amplifier 104 is controlled by integrator 107.

Please amend the paragraph beginning on page 13, line 18 and ending on page 14, line 1, as follows:

Base station apparatus A separates the signal received from antenna 118 by duplexer 117, demodulates by demodulator 120, subjects to signal processing by despreader 121 and RAKE combiner 123 and obtains reception signal RX_DATA_UA. At this time, SIR ~~maesurer~~ measurer 122 estimates the reception quality of the uplink signal using the output of RAKE combiner 123 and determines the transmission power control level of the uplink signal based on estimated value TPC_UBA. The determined transmission power control level is inserted into downlink transmission signal TX_DATA_D as a transmission power control bit by frame formatter 113.

Please amend the paragraph on page 14, beginning on line 6 and ending on line 11, as follows:

The amplification factor of amplifier 116 is controlled by incrementing/decrementing the offset value of offset adjuster 135 to which a value obtained by integrator 119 integrating TPC_DBA which was extracted by RAKE combiner 123, based on the quality of the uplink signal estimated by SIR ~~maesurer~~ measurer 122.

Please amend the paragraph on page 14, beginning on line 12 and ending on line 21, as follows:

To be more specific, if the quality of the uplink signal is not good, that is, if the output value of SIR ~~maesurer~~ measurer 122 is low, offset adjuster 135 determines that mobile station apparatus M is far from base station apparatus A and reduces the offset value to reduce the transmission power. On the contrary, if the quality of the uplink signal is good, that is, if the output value of SIR ~~maesurer~~ measurer 122 is high, offset adjuster 135 determines that mobile station apparatus M is near base station apparatus A and increases the offset value.

Please amend the paragraph on page 15, beginning on line 8 and ending on line 19, as follows:

On the other hand, base station apparatus B separates the signal received from antenna 129 by duplexer 128, demodulates by demodulator 131, subjects to signal processing by despreader 132 and RAKE combiner 134 and obtains reception signal RX_DATA_UB. At this time, SIR ~~maesurer~~ measurer 133 estimates the reception quality of the uplink signal using the output of RAKE combiner 134 and determines the transmission power control signal of the uplink signal based on estimated value TPC_UBB. The determined transmission power control signal is inserted into downlink transmission signal TX_DATA_D as a transmission power control bit by frame formatter 124.

Please amend the paragraph beginning on page 15, line 20 and ending on page 16, line 2, as follows:

As in the case of base station apparatus A, the output signal from the frame formatter is spread by spreader 125, modulated by modulator 126, amplified by amplifier 127 and transmitted from antenna 129 via duplexer 128. The amplification factor of amplifier 127 is controlled, as in the case of base station apparatus A, by RAKE combiner 134, integrator 130 and SIR ~~maesurer~~ measurer 133, etc. An increment/decrement of offset values of offset adjuster 136 of base station apparatus B is also controlled in the same way as for base station apparatus A above.

Please amend the paragraph on page 16, beginning on line 13 and ending on line 22, as follows:

Offset adjusters 135 and 136 above have a configuration in which values of the uplink signal measured by SIR ~~maesurers~~ measurers 122 and 133 or those values converted by a table, etc. and then optimized are added to the outputs of integrators 119 and 130. This allows not only transmission power control common to all base stations using the TPC bit inserted into the uplink signal but also power control specific to each base station apparatus according to its distance from the mobile station apparatus.

Please amend the paragraph on page 17, beginning on line 7 and ending on line 19, as follows:

On the other hand, mobile station apparatus M receives the signal whose transmission power has been controlled as shown above from antenna 106, separates by duplexer 105, demodulates by demodulator 108, subjects it to signal processing by despreader 109 and RAKE combiner 110 and obtains reception signal RX_DATA_D. SIR ~~maesurer~~ measurer 111 estimates the quality of the downlink reception signal using the output of RAKE combiner 110 and determines downlink transmission power control signal TPC_DM to be inserted into the uplink signal based on the estimated quality of the downlink reception signal. This is how downlink transmission power control is performed.

Please amend the paragraph on page 21, beginning on line 13 and ending on line 23, as follows:

The difference from Embodiment 1 is that base station apparatuses A and B are provided with reception power ~~maesurers~~ measurers 401 and 402, respectively. The transmission/reception apparatus according to Embodiment 2 carries out measurements of the level of reception signals from a mobile station apparatus at the base station apparatuses not by SIR ~~maesurers~~ measurers but by reception power ~~maesurers~~ measurers 401 and 402. Reception power ~~maesurers~~ measurers 401 and 402 adjust the level of offset values of offset adjusters 135 and 136 according to these measurement results.

Please amend the paragraph beginning on page 21, line 24 and ending on page 22, line 2, as follows:

That is, the amplification factor of downlink transmission signal TX_DATA_D is controlled by a value obtained by integrators 119 and 130 integrating transmission power control signal TPC_DBA which was extracted by RAKE combiners 123 and 134 and the reception power values of the uplink signal measured by reception power ~~maesurers~~ measurers 401 and 402.

Please amend the paragraph on page 22, beginning on line 3 and ending on line 13, as follows:

If the reception power of the uplink signal measured by reception power ~~maesurers~~ measurers 401 and 402 is small, mobile station M is judged to be far form base station A. In this case, base station apparatuses A and B reduce the offset values of offset adjusters 135 and 136 to reduce the amplification factor of amplifier 116, reducing the transmission power. On the contrary, if the reception power is large, mobile station apparatus M is judged to be near base station A and base station apparatuses A and B increase the offset values to increase the transmission power.

Please amend the paragraph on page 22, beginning on line 23 and ending on line 28, as follows:

As shown above, according to Embodiment 2, the base station apparatuses can perform more accurate downlink transmission power control through control by the transmission power control signal received and offset control based on the reception power values measured by reception power ~~maesurers~~ measurers 401 and 402.

Please amend the paragraph on page 23, beginning on line 15 and ending on line 25, as follows:

The difference from Embodiment 1 is that base station apparatuses A and B are provided with time difference ~~maesurers~~ measurers 501 and 502, respectively. The transmission/reception apparatus according to Embodiment 3 carries out measurements of the level of reception signals from a mobile station apparatus at base station

apparatuses not by SIR ~~maesurers~~ measurers but by time difference ~~maesurers~~ measurers 501 and 502. Time difference ~~maesurers~~ measurers 501 and 502 adjust the level of offset values of offset adjusters 135 and 136 according to the measurement results.

Please amend the paragraph beginning on page 23, line 26, and ending on page 24, line 5, as follows:

That is, the amplification factor of downlink transmission signal TX_DATA_D is controlled by both a value obtained by integrators 119 and 130 integrating transmission power control signal TPC_DBA which was extracted by RAKE combiners 123 and 134 and the time difference between the downlink signal transmission timing and the uplink signal reception timing measured by time difference ~~maesurers~~ measurers 501 and 502.

Please amend the paragraph on page 24, beginning on line 6 and ending on line 19, as follows:

If the time difference measured by time difference ~~maesurers~~ measurers 501 and 502 is large, mobile station apparatus M is judged to be far form base station A. In this case, base station apparatuses A and B reduce the offset values of offset adjusters 135 and 136 to reduce the amplification factor of amplifier 116, reducing the transmission power. On the contrary, if the time difference is small, mobile station apparatus M is judged to be near base station A and base station apparatuses A and B increase the offset values to increase the transmission power. The time difference measured values used for offset

adjustment are averaged to a certain degree so that they do not respond to instantaneous variations.

Please amend the paragraph on page 24, beginning on line 20 and ending on line 26, as follows:

As shown above, according to Embodiment 3, the base station apparatuses can perform more accurate downlink transmission power control through control by the transmission power control signal received and offset control based on the time difference between the transmission and receptions signals measured by time difference ~~maesurers~~ measurers 501 and 502.